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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,766	10/23/2001	Chaoying Zhang	AUD1P009	7541

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EXAMINER

HARVEY, DIONNE

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/037,766

Applicant(s)

ZHANG ET AL.

Examiner

Dionne N Harvey

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 U.S.C. § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-19, 21-23 and 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over alSafadi et al. (U.S. 6,467,088) in view of Weidner (U.S. 6,556,686).

Regarding claim 1, alSafadi teaches a method for controlling the reconfiguration of an electronic device, which reads on "a method for upgrading", comprising: receiving a reconfiguration request and determining one or more device components that are required to implement the reconfiguration request from information supplied by the electronic device (**see, column 2, lines 28-37**), which reads on "reading device information from the hearing device; sending the device information to the hearing aid upgrade server"; in **column 2, lines 53-60**, alSafadi teaches that the invention provides techniques for upgrading or otherwise reconfiguring electronic devices which is well suited for use with software upgrades delivered over a network, which reads on "via a network"; and in **column 2, lines 37-46**, alSafadi teaches determining identifiers of specific components of the electronic device from information supplied by the electronic device, doing a comparison to determine acceptable and unacceptable configurations

Art Unit: 2643

and downloading new configurations accordingly, which reads on “upgrading the device based on the upgrade data.” alSafadi teaches that the invention may be used for reconfiguration of software or other components of an electronic device such as a computer, PDA, set-top box, television, telephone or any other type of consumer electronic processing device (**see column 3, lines 16-21**) and therefore does not restrict to any particular device. alSafadi does not clearly teach that the electronic device is a hearing aid device.

Weidner teaches that there is a recognized need in the art for providing program adjustments in hearing aid devices for the purpose of adapting to the changing hearing behavior of its’ wearer over time (**see column 3, lines 43-50**). In **column 4, lines 15-26**, Weidner further teaches that it is well known in the art to upgrade a hearing device using software which may be transferred to the hearing device with a programming device. Since both alSafadi and Weidner are concerned with a system for upgrading electronic consumer devices, it would have been obvious for one of ordinary skill in the art at the time the invention was made to combine the teachings of alSafadi and Weidner, which would permit the reconfiguration of hearing aid devices over a network, thereby more easily facilitating the upgrade of these complex devices (**see, “BACKGROUND” in alSafadi reference**).

Regarding claim 2, alSafadi teaches that the upgrading comprises programming the device in accordance with the data.

Regarding claim 3, shown in figure 3 and discussed in column 6, lines 1-9, alSafadi teaches the use of server **(210)** and client **(214)** machines for communication

Art Unit: 2643

with the reconfiguration manager **(10)** and electronic device **(12)** via a network, which reads on "the method is preformed by a local programming station that operatively connects the upgrade server via network and wherein the local station is operatively connected to the hearing aid device."

Regarding claim 4, in **column 2, lines 41-44**, Weidner teaches that the local programming station is provided at a hearing aid dispensing office.

Regarding claim 5, Weidner teaches that there is a recognized need in the art for providing program adjustments in hearing aid devices thereby adapting to changing hearing behavior of its' wearer over time (see **column 3, lines 43-50**), which reads on "wherein the upgrading comprises programming the reprogrammable memory..."

Regarding claim 6, The combination of alSafadi and Weidner does not clearly teach that the programming of the hearing aid device operates to store an algorithm in the hearing aid device so as to enhance sound signals. However, the Examiner takes Official Notice that programming via storage of algorithms is well known in the art and would have been obvious in computer to computer communications over a network, since algorithms permit the compression of data for the distribution of software across a computer network (see cited reference **Goldman 6,615,405**).

Regarding claims 7-9, The combination of alSafadi and Weidner teaches that the network is the Internet and the method is implemented by computer.

Regarding claims 10,22 and 32, as set forth in the rejection of claim 1 above, the combination of alSafadi and Weidner teaches a method for upgrading a hearing aid device comprising: connecting the hearing aid device **(12)** to a programming system

Art Unit: 2643

(**figure 3** of alSafadi); reading device information from the hearing device; coupling the hearing aid programming system (**212,210**) to a remote upgrade server (**10**) through a network (**214**); requesting the upgrade based upon the device information; receiving at the programming system the requested upgrade for the hearing aid device through the network and installing the requested upgrade in the hearing aid device whereby the device operates in accordance with the upgraded software. Both alSafadi and Weidner teach upgrading the electronic device via software.

Regarding claims 11 and 28, in **columns 4-5**, alSafadi teaches determining whether the hearing aid device is suitable for upgrade based upon the device information.

Regarding claim 14, Both, alSafadi and Weidner appear to teach that the consumer electronic device, a hearing device as specifically taught by Weidner, is reprogrammable (for support, see **column 3, lines 43-50** in the Weidner reference).

Regarding claim 15, The combination of alSafadi and Weidner teaches that said programming of the reprogrammable memory operates to store upgraded software in the device, the software being used to enhance sound signals for the user.

Regarding claim 16, alSafadi teaches that the network is the Internet.

Regarding claims 17 and 23, alSafadi teaches that reading is performed by electronically reading the device information.

Regarding claims 12,13,27 and 33, the combination of alSafadi and Weidner, does not specifically teach that a password is required for entry to the hearing aid programming system. However, the Examiner takes Official Notice that the use of a

Art Unit: 2643

password for access to a computer or to network servers, are well known in the art for the purpose of protection against unauthorized usage.

Regarding claim 18, in **column 4, lines 33-40**, Weidner teaches a device identification number. Weidner does not specifically teach that the device identification number represents a serial number. However, it would have been obvious for one of ordinary skill in the art at the time of the invention to use an identification number being representative of any defining characteristics for the purpose of preventing the transfer of information in an unauthorized manner.

Regarding claim 19, alSafadi teaches receiving a reconfiguration request and determining one or more device components that are required to implement the reconfiguration request from information supplied by the electronic device (**see, column 2, lines 28-37**), which reads on "requesting of the upgraded software send the device information to the remote hearing aid upgrade server"

Regarding claim 21, in **column 5, lines 36-39**, Weidner teaches the incorporation of an error message for the person who adapts the hearing device to the patient. The Examiner has interpreted this disclosure as indirectly teaching that when no error has occurred, the fitting of the hearing device by the acoustician or otolaryngologist may continue and thusly be completed, which reads on "...displaying a notification message that the hearing device has been modified such that refitting is needed."

Regarding claims 29-31, as set forth in the rejection of claim 1, 10, 22 and 32 above, the combination of alSafadi and Weidner teaches upgrading electronic devices

Art Unit: 2643

via computer through a network which may include global computer communications such as the Internet, and therefore teaches a computer readable medium including at least one computer program code for upgrading an electronic consumer device; said computer readable medium comprising: computer program code for reading device information from the hearing aid device; computer program code for coupling the hearing aid programming system to a remote hearing aid upgrade server; computer program code for sending the device information to a hearing aid upgrade server via a network and requesting upgrade software for the hearing aid device; computer program code for subsequently receiving upgrade data from the hearing aid upgrade server via the network; and computer program code for upgrading the hearing aid device based upon the upgrade data.

2. Claims 20 and 24-26, are rejected under 35 U.S.C. 103(a) as being unpatentable over alSafadi et al. (U.S. 6,467,088) in view of Weidner (U.S. 6,556,686), as applied to claims 19 and 22 above, and further in view of Putvinski (WO/17819).

Regarding claims 20 and 24-26, the combination of alSafadi and Weidner does not clearly teach that receiving comprises receiving returned device information from the remote hearing aid upgrade server through the network, and wherein the installing operates to install the upgraded software in the hearing aid device only when the device information obtained by said reading matches the returned device information.

On **page 6, lines 18-26**, Putvinski teaches that reprogramming of the memory of a hearing device includes sending device information to the upgrade source, receiving



Art Unit: 2643

returned information by the upgrade source and finally installing the upgraded software in the hearing aid device only when the device information obtained by said reading matches the returned device information.

It would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate the step of Putvinski into the combined teachings of alSafadi and Weidner, for the purpose of isolating data appropriate to the specific device for which information is being provided.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Goldman (US 6,615,405)** teaches algorithms in data transmissions.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statements for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne Harvey whose telephone number is (703) 305-

Art Unit: 2643

1111. The examiner can normally be reached on Monday through Friday from 8:30am to 6:00pm.

**Any responses to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, DC 20231

**or faxed to:**

(703) 308-6306, for formal communications for entry

**Or:**

(703) 308-6296, for informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor(Receptionist)

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis

Kuntz, can be reached at (703) 305-4708.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne Harvey whose telephone number is (703) 305-1111.

D.H.

May 14, 2004

  
HUYEN LE  
PRIMARY EXAMINER